

OUTREACH HEALTH CARE SERVICES OF THE PRIMARY HEALTH CENTRES - AN HOUSEHOLD SURVEY

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ABSTRACT

The concept of Primary Health Centre (PHC) is not new to India. It is the Bhole Committee in 1946 which gave the concept of a PHC as a basic health unit to provide as close to the people as possible, an integrated curative and preventive health care to the rural population . It is the cornerstone of rural healthcare. In the present scenario where there is rise in communicable diseases there is an urgent need of the community to prevent the rising diseases. Preventing diseases in one way keep people healthy. Even the policymakers and employers has also viewed that prevention improves worker health and productivity. With respect to this, the article explains the role of health workers of PHCs in preventing diseases. The article in the first part focuses on the visit of the different categories of PHCs health workers to the households, and the second part focuses on the outreach services the health workers provide in the prevention process.

Key words: Primary Health Centres, outreach services, Source reduction, Immunisation

1. Introduction

The Primary Health Centres (PHC) are the basic structural and functional unit of the public health services in countries like India . PHCs were established to provide accessible, affordable and available primary health care to people. Primary Health Centres are also the first contact point between the rural community and the doctors who are called Medical Officer (MO). Along with the medical care services PHCs provide to the patients, the Centres also provide preventive and promotive health care services to the rural population in the community. These preventive services and promotive services forms the outreach services of the PHCs .These services are delivered to the community through the visits of health workers. The PHCs sent out various categories of health workers to individual houses and the community in the remote and undeserved area to provide health services at the door steps of the people. Here the research article focuses on the preventive services which the Primary Health Centres delivers to the community.

Data and Sources of Data

Here, the study area taken is Pathanamthitta district of Kerala as it consists of PHCs in the different areas Urban, Rural and Remote Rural. The study is based on household perspective and mainly primary data is used from the PHCs of these different areas. The primary data is collected from households through an interview schedule. The size of the household for sample survey was decided using the procedure of sample size estimation. The sample size is determined as $n=N/(1+0.0025 N)$, N is the population size. Therefore a total of 375

households where, 75 households from Urban area , 153 from Rural area and 147 from remote rural area were selected.

2. Visit of health workers

The outreach health services of PHCs are mainly done through the visit of health workers. The foremost objective of any health system is to prevent diseases by reducing ill healthy situation, so that people could remain as healthy as possible. An important aspect of disease prevention is health promotion. Many health problems are usually exacerbate due to lack of timely immunisation, contaminated drinking water, improper disposal and dumping of waste materials, lack of toilet facility etc. These social determinants of health are the key factors to ensure sustainable development and improvement of health in the long term. Control over the determinants of basic health care is the strategy to achieve this goal. One of the key services of PHCs to the community is promoting basic health care and preventing diseases. It comprises promotion of safe water supply, sanitation, prevention of locally epidemics, diseases surveillance and control of epidemics. These services are provided through frequent visits and conducting of health classes by the health inspector and Lady Health Inspector who are in charge of these activities supported by Junior Health Inspector, Junior Public Health Nurse and ASHA workers. Each PHCs serves three to four wards and the total houses in these wards around the centre are divided into 40 blocks with 20 houses in each block. The Junior Health Inspector and Junior Public Health Nurse visits 20 houses every day. Within 40 days they will have to cover about 800 household allotted to them. When Junior Health Inspector moves in clock wise direction to these households, Junior Public Health Nurse visits anticlockwise. The Junior Health Inspectors and Junior Public Health Nurses are supported by ASHA workers for the smooth functioning of the health care within their allotted area. For each ward, there is one ASHA worker. Usually Junior Health Inspectors concentrates on how to control diseases in their respective area and Junior Public Health Nurses focus on promoting awareness relates to maternal and child health, family planning and more particularly on immunisation. ASHA workers are supposed to report all their health related activities in their respective areas to their respective Junior Health Inspectors and Junior Public Health Nurses. PHCs have three to four Sub Centres and every Sub Centre is supposed to have a Junior Health Inspector and Junior Public Health Nurse.

During the visits of these health workers, they make households aware of the importance of good health, sanitation, vaccination and provide bleaching powder for chlorinating of wells. They also do source reduction by finding out the source of any diseases. If they know about any patient suffering from water, vector or air borne diseases in their respective areas, they take steps to prevent spreading of the diseases. In some cases they are informed from the Integrated Disease Surveillance Project (IDSP) about the existence of these diseases in their respective areas. They tackle preventive measures by arranging fever survey and fogging within 24 hours for source reduction. As a part of this work, they identify the source of household water and collect samples of blood, food and stool samples etc. The health workers chlorinate each house twice a year. If leptocases are found, chlorination is immediately done. Household visits are more frequent in January and February which are considered as the immunisation period and also during the rainy seasons.

The following discussion presents the analysis of the opinion of households about the visit of health workers and staff which includes Junior Health Inspector, Junior Public Health Nurse, ASHA workers and doctors. In addition it also examines the preventive measures adopted by them in the community such as conducting health awareness classes and camps on immunisation, maternal care and family planning, usage of sanitation kit provided by health workers, chlorinating the wells and preventing development of mosquito larvae(source reduction).

Table 1:Opinion of Households about the visit of different Categories of Health Workers

Areas	Category of health workers visited					Don't know	Nobody visited
	ASHA workers	Junior Public Health Nurse	Junior Health Inspector	Doctors			
Urban	44 (58.7)	1 (1.3)	0 (0)	0 (0)		27 (36)	4 (5.3)
Rural	120 (78.4)	54 (35.3)	1 (.7)	0 (0)		28 (18.3)	1 (.7)
Remote Rural	88 (59.9)	24 (16.3)	9 (6.1)	2 (1.4)		36 (24.5)	23 (15.6)
Total	252 (67.2)	79 (21.1)	10 (2.7)	2 (.5)		91 (24.3)	28 (7.5)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages

As per the information in table 1, 67.2 percent of households recognized the visit of ASHA workers and 21.1 percent opine that there was visit of Junior Public Health Nurse. Around 7.5 percent of households reported that nobody till now visited their houses. Though this percentage is low, this portrays a poor situation and brings into focus the need for the visit of all health workers be made compulsory at least once in two months. As ASHA workers are found visiting the households, it is necessary to see as to how often they visit the households.

Table 2: Opinion of the Households about the Frequency of the Visit of ASHA Workers

Areas	Frequency of the visit					Total
	Regularly	Occasionally	Once	Never	Cannot remember	
Urban	8 (10.7)	26 (34.7)	9 (12.0)	18 (24.0)	14 (18.7)	75 (100)
Rural	20 (13.1)	115 (75.2)	2 (1.3)	13 (8.5)	3 (2.0)	153 (100)
Remote Rural	44 (29.9)	59 (40.1)	0 (.0)	9 (6.1)	35 (23.8)	147 (100)
Total	72 (19.2)	200 (53.3)	11 (2.9)	40 (10.7)	52 (13.9)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 108.1, df = 8, P-value<.01

Table 2 displays the existing situation of the visit of ASHAs workers in the three areas. Even though ASHA workers are supposed to conduct regular visits, only 19.2 percent opined that they visit regularly. It is found that the ASHA workers conduct regular visits to the households which are nearby the PHC and as distance increases visit also declines due to transportation problems. Some ASHA workers reported that it is difficult for them to visit regularly these independent colonies which lie in the remote and hilly terrain. It is interesting to note that ASHA workers or other workers do not visit even the households within one kilometer of the PHCs in the urban area. Around 75.2 percent of the households in rural and 40.1 percent in the remote rural areas reported that an ASHA worker visits occasionally. The need to have more of visits by the ASHAs that is essential for households for getting information on the health related problems and diseases of the community. More visits to the remote rural areas are very much needed to control spreading out of communicable diseases too.

The Chi square value 108.1at .01 level of significance with degree of freedom 8is greater than the table value. That is, the test showed that the existing situation of visits of ASHA workers in the households and the areas of PHC are significantly associated. Now, to find the effectiveness of the visits, the study examined the visit of Junior Health Inspector and Junior Public Health Nurse during the last six months from the time of survey.

Table 3: Opinion of the Households about the Visit of Junior Health Inspector and Junior Public Health Nurse within Last Six Months of the Survey Period

Areas	Visit of JHI and JPHN		Total
	Visited	Did not visit	
Urban	23 (30.7)	52 (69.3)	75 (100)
Rural	101 (66.0)	52 (34.0)	153 (100)
Remote Rural	93 (63.3)	54 (36.7)	147 (100)
Total	217 (57.9)	158 (42.1)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 26.68, df = 2, P-value<.01

Table 3.brings a picture about the visit of Junior Health Inspector and Junior Public Health Nurse. Only 57.8 percent of the households replied in the affirmative to the queries about the visit of any health workers during the last six months. In the rural areas, this is 66 percent and is 63.3 percent in remote rural. In urban area, only 30.7 percent of households benefited the visit of health workers which is poor compare to the

rural and remote areas. Around 42.1 percent of households reported that there was no visit of health workers in their houses within the said six months. This depicts the actual number of visit of health workers in the community.

The Chi square value 26.68 at .01 level of significance with degree of freedom 2 is greater than the table value .That is, the test shows that the existing situation of the visit of the health workers and the different areas of households are significantly associated.

3. Services of Primary Health Centres in Preventing Diseases

Health Awareness Camps

As a part of community outreach services, the PHCs organize health awareness camps and classes on the various health topics. The health workers during their visit to households make them aware of the need to attend these health awareness classes and camps. The table 4 shows the number of households who have attended, not attended and not aware about the classes.

Table 4: Participation of Households in Health Awareness Classes

Area	Number of Households			Total
	Attended	Did not attend	Not aware of	
Urban	7 (9.3)	35 (46.7)	33 (44.0)	75 (100)
Rural	37 (24.2)	107 (69.9)	9 (5.9)	153 (100)
Remote Rural	39 (26.5)	55 (37.4)	53 (36.1)	147 (100)
Total	83 (22.1)	197 (52.5)	95 (25.3)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 62.7, df = 4, P-value < .01

Table 4 describes the relationship between the participation of households in health awareness classes and the three geographical areas. The table shows that only 22.1 percent attended these health awareness classes and around 25.3 percent were not aware of the classes conducted by the PHC .This highlights the fact that health awareness classes are not effectively conducted especially in urban area. The Chi -square value 62.7at .01 level of significance with degree of freedom 4 is greater than the table value. That is, the test shows that the existing situation of households participation in the health awareness classes and the area of households are significantly associated.

Distribution of Sanitation Kits

PHC workers usually visit the households for providing health awareness about sanitation which is an important factor that help to prevent diseases. The households are made aware about the need of keeping their houses and surroundings clean. They also provide sanitation kits and scrutinize whether the sanitation kits are effectively used by the households. The table 5 depicts the households who have used, not used and those not yet received the sanitation kit by the health workers or from the PHCs directly.

Table 5: Use of Sanitation Kit by the households

Areas	Number of households			Total
	Used the kit	Didn't use	Didn't Get	
Urban	19 (25.3)	19 (25.3)	37 (49.3)	75 (100)
Rural	100 (65.4)	25 (16.3)	28 (18.3)	153 (100)
Remote Rural	67 (45.6)	27 (18.4)	53 (36.1)	147 (100)
Total	186 (49.6)	71 (18.9)	118 (31.5)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 36.3, df = 4, P-value < .01

Table 5 highlights the relationship with the situation of households using sanitation kits in the different areas. Though 49.6 percent used the kit received from PHC, 18.9 percent have not yet used it. This points out that, the health workers during their visits could not make sure that the sanitation kits received are utilised properly to prevent any water borne and vector borne diseases. It was found that 31.5 percent of households did not get the kit. The percentage is seen greater in the urban area. The Chi square value 36.3 at .01 level of significance with degree of freedom 4 is greater than the table value. The test showed that the existing situation of households regarding the usage of sanitation kit and the area of households are significantly associated.

Chlorination and Source Reduction

PHC workers make the households aware about the need of chlorinating their wells. They used to chlorinate the wells and find out the sources of any vector or water borne diseases if any that could spread in the community and try to reduce it which is called Source Reduction. The table 6 explains the number of households who received and not yet received these services.

Table 6: Households who received Chlorination and Source Reduction within Six Months of the Survey

Areas	Number of households		Total
	Received	Didn't received	
Urban	17 (22.7)	58 (77.3)	75 (100)
Rural	88 (57.5)	65 (42.5)	153 (100)
Remote Rural	69 (46.9)	78 (53.1)	147 (100)
Total	174 (46.4)	201 (53.6)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 24.6, df = 2, P-value<.01

Table 6 illustrates the relationship with the situation of households who have chlorinated their wells and benefited from source reduction during the last six months in the different geographical areas. It is reported that 46.4 percent of the households have chlorinated water sources and done source reduction within the last six months of the survey. The number is more in rural areas. The Chi square value 24.6at .01 level of significance with degree of freedom two is greater than the table value. That is, the test shows that the existing situation of households chlorinating wells and doing source reduction during the last six months and the area of households are significantly associated. Along with the above services, an important preventive service of PHC is promoting awareness about immunisation and providing immunisation services where needed.

Immunisation

Immunisation is a highly cost effective method in improving survival of children in developing countries. Every year all over the world, a projected 27 million children and 40 million pregnant women do not obtain the basic package of immunisations (as defined by WHO and UNICEF) and two to three million people die of diseases that can be prevented with vaccines. Kerala has achieved 100 percent immunisation. It is very essential to maintain this rate and immunize the children regularly.

Table 7: Households taken Immunisation

Areas	Number of Households		Total
	Taken immunisation	Not taken immunisation	
Urban	72 (96.0)	3 (4.0)	75 (100)

Rural	115 (75.2)	38 (24.8)	153 (100)
Remote Rural	136 (93.2)	11 (6.8)	147 (100)
Total	323 (86.4)	52 (13.6)	375 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 27.92, df = 2, P-value<.01

The table 7 depicts that about 86.4 percent of the households have taken immunisation. In remote rural area 93.2 percent and in rural area 75.2 percent are immunized. Altogether, 13.6 percent are left without immunisation. They are mostly those households living in rural colonies. PHC has also played a role in promoting immunisation services to the community. But on the other side despite, being Pathanamthitta the first polio eradicated district in Kerala which is fully immunized; there still exists immunisation gap in the areas covered by the sample PHCs.

Table 8: Households availed of Immunisation from Different Health Institutions

Areas	Health Institution				Total
	PHC	Private clinics	Other Government hospital	Others	
Urban	37 (51.4)	30 (41.7)	5 (6.9)	0 (.0)	72 (100)
Rural	96 (83.5)	7 (6.1)	8 (7.0)	4 (3.5)	115 (100)
Remote Rural	62 (45.6)	28 (20.6)	32 (23.5)	14 (10.3)	136 (100)
Total	195 (60.4)	65 (20.1)	45 (13.9)	18 (5.6)	323 (100)

Source: Primary Data (Sample Survey, 2015-16)

Figures in Parenthesis indicate the percentages, Chi square value = 69.8, df = 6, P-value<.01

Table 8 displays the existing situation of households availing immunisation from different health institutions. Around 60.4 percent of the households have utilised PHCs for immunisation. This is an achievement of the PHCs. The health workers are very keen in visiting the houses whenever it needs immunisation services. As per the response of the health workers are active in providing and promoting awareness on immunisation to the households who have children under the age of 10. Through our survey, it was heartening to observe that the staff visits the houses of children and also provide immunisation services to those who are not yet immunized from any health institutions.

The Chi square value 69.8 and the test is significant at .01 level of significance. That is, the test shows that the existing situation of users of PHCs for immunisation and the area of households have a significant association. As immunisation is a major preventive service in our community, all health institutions are playing their part very well.

4. Concluding observations

The study points out that the PHCs an effective role in preventing diseases but still there are shortcomings and drawbacks. The analysis shows that the services of PHCs are better seen in rural and remote rural areas than in the urban areas. This is because of the fact that in urban areas, due to better facilities and even better health care the households are not ready to accept the services of PHCs. The analysis also reveals the fact that frequent visits of health workers coupled with effective health awareness classes to the community is the need of the community. This could be effectively organised if more doctors and health workers are in all those areas, wherever it is needed. Attendance of specialised doctors in the health awareness classes and camps should be made a mandatory duty; and the health workers while they visit households make sure that the households have properly chlorinated their wells, keep their surrounding hygienic and no garbage is piled up. If this is properly and systematically worked out, it would produce better results in preventing of diseases spreading in the areas. When diseases are prevented, there will be better health in the community, which leads to human resource development which in turn improves the productive capacity of the community. This can also reduce expenses of the people for health care.

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